

## Title (en)

IMAGE PREDICTION/ENCODING DEVICE, IMAGE PREDICTION/ENCODING METHOD, IMAGE PREDICTION/ENCODING PROGRAM, IMAGE PREDICTION/DECODING DEVICE, IMAGE PREDICTION/DECODING METHOD, AND IMAGE PREDICTION DECODING PROGRAM

## Title (de)

EINRICHTUNG, VERFAHREN UND PROGRAMM ZUR BILDPRÄDIKTION/-CODIERUNG, EINRICHTUNG, VERFAHREN UND PROGRAMM ZUR BILDPRÄDIKTION/-DECODIERUNG

## Title (fr)

DISPOSITIF DE PRÉDICTION/CODAGE D'IMAGE, PROCÉDÉ DE PRÉDICTION/CODAGE D'IMAGE, PROGRAMME DE PRÉDICTION/CODAGE D'IMAGE, DISPOSITIF DE PRÉDICTION/DÉCODAGE D'IMAGE, PROCÉDÉ DE PRÉDICTION/DÉCODAGE D'IMAGE, ET PROGRAMME DE PRÉDICTION/DÉCOD

## Publication

**EP 2154901 A4 20110622 (EN)**

## Application

**EP 08740053 A 20080408**

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## Abstract (en)

[origin: EP2154901A1] An objective is to provide an image predictive encoding device, image predictive encoding method, image predictive encoding program, image predictive decoding device, image predictive decoding method, and image predictive decoding program for selecting a plurality of candidate prediction signals, without increase in information amount. A weighting unit 234 and an adder 235 process pixel signals extracted by a prediction adjacent region extractor 232 by a predetermined synthesis method, for example, by averaging to generate a comparison signal to an adjacent pixel signal for each combination. A comparison-selection unit 236 selects a combination with a high correlation between the comparison signal generated by the weighting unit 234 and others and the adjacent pixel signal acquired by a target adjacent region extractor 233. A prediction region extractor 204, weighting unit 205, and adder 206 generate candidate prediction signals and process them by a predetermined synthesis method to generate a prediction signal.

## IPC 8 full level

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## CPC (source: EP KR US)

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## Citation (search report)

- [YA] WO 2007004678 A1 20070111 - NTT DOCOMO INC [JP], et al & EP 1919223 A1 20080507 - NTT DOCOMO INC [JP]
- [YA] THIOU KENG TAN ET AL: "Intra Prediction by Template Matching", IMAGE PROCESSING, 2006 IEEE INTERNATIONAL CONFERENCE ON, IEEE, PI, 1 October 2006 (2006-10-01), pages 1693 - 1696, XP031048981, ISBN: 978-1-4244-0480-3
- [YA] BALLE J ET AL: "Extended texture prediction for H.264/AVC intra coding", ITU STUDY GROUP 16 - VIDEO CODING EXPERTS GROUP -ISO/IEC MPEG & ITU-T VCEG(ISO/IEC JTC1/SC29/WG11 AND ITU-T SG16 Q6), XX, XX, no. VCEG-AE11, 14 January 2007 (2007-01-14), XP030003514
- [YA] YU: "New Intra Prediction using Self-Frame MCP", ITU STUDY GROUP 16 - VIDEO CODING EXPERTS GROUP -ISO/IEC MPEG & ITU-T VCEG(ISO/IEC JTC1/SC29/WG11 AND ITU-T SG16 Q6), XX, XX, no. JVT-C151r1-L, 10 May 2002 (2002-05-10), XP030005267
- [Y] SULLIVAN G ED - INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS: "Multi-hypothesis motion compensation for low bit-rate video coding", 1993 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING, 1993. ICASSP-93; [PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING (ICASSP)], PISCATAWAY, NJ, USA, vol. 5, 27 April 1993 (1993-04-27), pages 437 - 440, XP010110896, ISBN: 978-0-7803-0946-3, DOI: 10.1109/ICASSP.1993.319841
- [Y] FLIERL M ET AL: "Generalized B pictures and the draft H.264/AVC video-compression standard", IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 13, no. 7, 1 July 2003 (2003-07-01), pages 587 - 597, XP011099251, ISSN: 1051-8215, DOI: 10.1109/TCSVT.2003.814963
- [Y] MARKUS FLIERL ET AL: "Rate-Constrained Multihypothesis Prediction for Motion-Compensated Video Compression", IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 12, no. 11, 1 November 2002 (2002-11-01), XP011071889, ISSN: 1051-8215
- See references of WO 2008126843A1

## Cited by

FR2991843A1; CN104756496A; EP3586510A4; EP2782344A1; CN104065970A; US9547915B2; WO2018067733A1; WO2014048946A1; US9374597B2; US10798404B2; US10880570B2; US10951912B2

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## DOCDB simple family (publication)

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JP 2008056950 W 20080408; KR 20097022333 A 20080408; KR 20117012289 A 20080408; RU 2011147926 A 20111124;  
TW 97112868 A 20080409; US 59524208 A 20080408